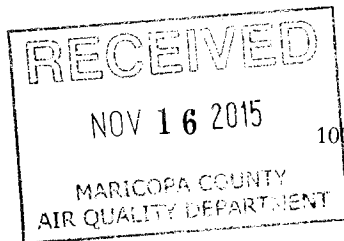




Maricopa County

Air Quality Department



712101-10
wD
Maricopa County Air Quality Department
1001 N Central Ave, Suite 125, Phoenix, AZ 85004
Phone (602) 506-6010 Fax (602) 372-0587
AQPermits@mail.maricopa.gov

NON-TITLE V PERMIT MINOR MODIFICATION APPLICATION

NOTIFICATION OF MINOR MODIFICATION AT A CURRENTLY PERMITTED FACILITY

ALL APPLICANTS MUST COMPLETE THE ENTIRE APPLICATION

Per Rule 220, Section 405 and Section 406, this notification must be submitted for a currently permitted facility for a minor permit revision. This notification is not required for changes in work schedules or relocation of equipment for similar use within a permitted facility.

Important: Please note that email will be our primary means for routine communication with you, unless you do not have an email account. Please be sure that your email address is entered correctly.

Submit this notification prior to making the modifications. If confidentiality is claimed pursuant to ARS §49-487, a fully completed application with confidential information clearly identified along with a separate copy of the application for public review without the confidential information and a written justification for the confidentiality claimed must be submitted. Complete both sides by typing or printing legibly. A filing fee of **\$200.00** must accompany your application (make checks payable to MCAQD). If the application is submitted as a result of receiving a notice of violation (NOV), an additional **\$100.00** late fee must accompany the application. Before the permit is issued, the Permittee will be billed for all permit processing time required for a billable permit action at a rate of \$150.00 per hour, adjusted annually under Department Rule 280 (Fees), §304. An annual administrative fee will also be charged per Rule 280, §302.2. For questions regarding billing, call (602) 372-1071.

Business Name: Hickman's Egg Ranch, Inc.	Existing Air Quality Permit Number for this Site: 140062 - 410195
Address of Site: 41625 West Indian School Road	
City: Tonopah	State: AZ Zip Code: 85354 Telephone At Site: 623-393-0225
Contact Person at Site: Francisco G. Ruiz	
Mailing Address: 224 North 4th Street	
City: Buckeye	State: AZ Zip Code: 85326 Telephone: 623-872-2341
Fax: 623-474-6392	E-mail: fruiz@hickmanseggs.com

Based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Date: 11-5-15

Signature of owner or responsible official of business:

Type or print name and title: Francisco G. Ruiz/Safety & Health Coordinator

Do Not Write In This Space.

Reviewed by: _____ Date: _____

☐ Approved

☐ Denied

Reason for denial: _____

For Office Use Only	Date Received:	Log Number: 140062-410195
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Maricopa County

Air Quality Department

Maricopa County Air Quality Department
1001 N Central Ave, Suite 125, Phoenix, AZ 85004
Phone (602) 506-6010 Fax (602) 372-0587
AQPermits@mail.maricopa.gov

NON-TITLE V PERMIT - MINOR MODIFICATION APPLICATION

1. Narrative description of the proposed modification :

Two new diesel generators will be install for Lay Houses 10 & 11

New Generator G-40 for Lay House 10 (TB-10)

New Generator G-41 for Lay House 11 (TB-11)

These emergency generators will be operating 52 hours per year for weekly testing.

2. Provide a list of equipment and emission control devices which will be installed or modified :

Assigned Equipment Number	Describe each Piece of Equipment Include Make & Model	Date of Installation or Modification	How Many	HP, KVA Gallons or Other Ratings (Specify Units)	Exhaust - Vent to Air	Exhaust - Vent to Control (Identify)		
G-40	Diesel Generator/Cummins/QSL9	12/1/2015	1	464hp, 250 Kw	Yes		Add Cell	Remove Cell
G-41	Diesel Generator/Cummins/QSL9	12/1/2015	1	464hp, 250 Kw	Yes		Add Cell	Remove Cell

3. Material List : List all materials handled, stored, processed, used, mixed, treated, or emitted. Include chemicals, mixtures, resins, cleaning compounds, etc., in this list. Identify each in sufficient detail and provide material safety data sheets (MSDS)

Material	Annual Usage or Throughput	Chemical Composition (% by weight)	Equipment Number in Which Used		
				Add Cell	Remove Cell

4. Describe Control Devices

Type of Device	Name/ID	Gas Flow Rate SCFW	Liquid Flow Rate Gal/Min	Control Efficiency (% Weight)		
					Add Cell	Remove Cell

5. Materials reclaimed or shipped as waste :

If applicable, complete the attached section Z-M.

1. NARRATIVE DESCRIPTION OF THE PROPOSED MODIFICATION: _____

Please add two boilers for the eggwashers at the processing plant. These boilers are make by Lochinvar LLC. One Fuels tank for construction (10,000 gallons red diesel AST), and one electric water heater for restrooms and break room.

2. PROVIDE A LIST OF EQUIPMENT AND EMISSION CONTROL DEVICES WHICH WILL BE INSTALLED OR MODIFIED:

ASSIGNED EQUIPMENT NUMBER	DESCRIBE EACH PIECE OF EQUIPMENT INCLUDE MAKE & MODEL	DATE OF INSTALLATION OR MODIFICATION	HOW MANY	HP, KVA GALLONS OR OTHER RATING (Specify Units)	EXHAUST	
					VENT TO AIR	VENT TO CONTROL (Identify)
	Lochinvar Copper fin II Boiler Model CHL0992	9/2014	2	990,000 Btu/hr		

3. MATERIALS LIST: List all materials handled, stored, processed, used, mixed, treated, or emitted. Include chemicals, mixtures, resins, cleaning compounds, etc., in this list. Identify each material in sufficient detail and provide material safety data sheets (MSDS).

MATERIAL	ANNUAL USAGE OR THROUGHPUT	CHEMICAL COMPOSITION (% by weight)	EQUIPMENT NUMBER IN WHICH USED

4. DESCRIBE CONTROL DEVICES

TYPE OF DEVICE	NAME / ID	GAS FLOW RATE SCFM	LIQUID FLOW RATE GAL/MIN	CONTROL EFFICIENCY (% WEIGHT)

5. MATERIALS RECLAIMED OR SHIPPED AS WASTE:

IF APPLICABLE, COMPLETE THE ATTACHED SECTION Z-M.



MODÉLE): CHL0992

SERIE) H14H0266951

CONTRÔLE): M7
114216

THE NAMEPLATE IS ATTACHED TO THE HEAT EXCHANGER
LOCHINVAR LLC
300 MADDOX ST
MEMPHIS, TN 38102

FOR PROPANE GAS

ALTITUDE ABOVE SEA LEVEL

180

960

180

180

NATURAL PROPANE

input

9900000

9900000

3600000

3600000

output

8420000

8420000

14



Maricopa County

Air Quality Department

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NON-TITLE V PERMIT MINOR MODIFICATION APPLICATION



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NON-TITLE V PERMIT MINOR MODIFICATION APPLICATION

SECTION Z-M

AIR POLLUTANT EMISSIONS

Provide a summary of the projected actual air emissions on an annual basis for the entire site in the following summary tables. Attach detailed calculations to support the figures. **If supporting calculations are not included with the application, the application will be deemed incomplete.**

Provide a summary of the actual air emissions on an annual basis for the following three columns:

- (i) Emissions to be released from only the equipment and affected processes described on this notification
- (ii) The entire site prior to the modification of the equipment and processes described in (i) above.
- (iii) The entire site including the emissions identified in (i) above. Normally, this column will be the sum of columns (i) and (ii).

Pollutant	Column (i)	Column (ii)	Column (iii)		
Carbon Monoxide (CO)					
Oxides Of Nitrogen (NO _x)					
Oxides Of Sulfur (SO _x)					
Particulates Of 10 Microns Or Smaller (PM ₁₀)					
Total Suspended Particulates (TSP), Including PM ₁₀					
Volatile Organic Compounds (VOCs) ¹					
Federal hazardous air pollutants (list each one separately):					
				Add Column	Remove Column

¹ VOCs are defined by EPA at: http://www.epa.gov/ttn/naaqs/ozone/ozonetech/def_voc.htm

Attach detailed calculations to support the figures in the above summary tables. Do not include the emissions from motor vehicles. Include the emissions from stationary sources, portable sources, test areas, experimental facilities, evaporative losses, storage and handling losses, fuel loading and unloading losses, etc. Specifically identify the following in detailed calculations:

1. Emissions From Each Point Source And Each Stack
2. Capture Efficiencies
3. Control Efficiencies
4. Overall Efficiencies
5. Fugitive Emissions
6. Non-point (area) Emissions

For particulate (dust) emissions, describe the types of particulates being emitted and the quantities of emissions for each type. Identify and quantify each and every type of VOC that is included in the above summary tables. Whenever a material is identified by a trade name, also provide its generic name and its chemical abstract service (CAS) number.

Help sheets for calculating emissions from specific industries or processes can be obtained at:

http://www.maricopa.gov/aq/divisions/planning_analysis/emissions_inventory/instructions.aspx

If you need help completing the application package, please see our website or contact 602-506-5102.

<http://www.maricopa.gov/aq>



FEDERAL HAZARDOUS AIR POLLUTANTS LIST

(Federal Clean Air Act, Title I, Section 112(b))

CAS No.	Chemical name
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	2-Acetylaminofluorene
107028	Acrolein
79061	Acrylamide
79107	Acrylic acid
107131	Acrylonitrile
107051	Allyl chloride
92671	4-Aminobiphenyl
62533	Aniline
90040	o-Anisidine
1332214	Asbestos
71432	Benzene (including benzene from gasoline)
92875	Benzidine
98077	Benzotrithloride
100447	Benzyl chloride
92524	Biphenyl
117817	Bis(2-ethylhexyl)phthalate (DEHP)
542881	Bis(chloromethyl)ether
75252	Bromoform
106990	1,3-Butadiene
156627	Calcium cyanamide
133062	Captan
63252	Carbaryl
75150	Carbon disulfide
56235	Carbon tetrachloride
463581	Carbonyl sulfide
120809	Catechol
33904	Chloramben
57749	Chlordane
7782505	Chlorine
79118	Chloroacetic acid
532274	2-Chloroacetophenone
108907	Chlorobenzene
510156	Chlorobenzilate
67663	Chloroform
107302	Chloromethyl methyl ether
126998	Chloroprene
1319773	Cresols/Cresylic acid (isomers and mixture)
95487	o-Cresol
108394	m-Cresol
106445	p-Cresol
98828	Cumene
94757	2,4-D, salts and esters
3547044	DDE
334883	Diazomethane
132649	Dibenzofurans
96128	1,2-Dibromo-3-chloropropane
84742	Dibutylphthalate
106467	1,4-Dichlorobenzene(p)
91941	3,3-Dichlorobenzidine
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)
542756	1,3-Dichloropropene
62737	Dichlorvos
111422	Diethanolamine

CAS No.	Chemical name
121697	N,N-Diethyl aniline (N,N-Dimethylaniline)
64675	Diethyl sulfate
119904	3,3-Dimethoxybenzidine
60117	Dimethyl aminoazobenzene
119937	3,3'-Dimethyl benzidine
79447	Dimethyl carbamoyl chloride
68122	Dimethyl formamide
57147	1,1-Dimethyl hydrazine
131113	Dimethyl phthalate
77781	Dimethyl sulfate
534521	4,6-Dinitro-o-cresol, and salts
51285	2,4-Dinitrophenol
121142	2,4-Dinitrotoluene
123911	1,4-Dioxane (1,4-Diethyleneoxide)
122667	1,2-Diphenylhydrazine
106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)
106887	1,2-Epoxybutane
140885	Ethyl acrylate
100414	Ethyl benzene
51796	Ethyl carbamate (Urethane)
75003	Ethyl chloride (Chloroethane)
106934	Ethylene dibromide (Dibromoethane)
107062	Ethylene dichloride (1,2-Dichloroethane)
107211	Ethylene glycol
151564	Ethylene imine (Aziridine)
75218	Ethylene oxide
96457	Ethylene thiourea
75343	Ethylidene dichloride (1,1-Dichloroethane)
50000	Formaldehyde
76448	Heptachlor
118741	Hexachlorobenzene
87683	Hexachlorobutadiene
77474	Hexachlorocyclopentadiene
67721	Hexachloroethane
822060	Hexamethylene-1,6-diisocyanate
680319	Hexamethylphosphoramide
110543	Hexane
302012	Hydrazine
7647010	Hydrochloric acid
7664393	Hydrogen fluoride (Hydrofluoric acid)
123319	Hydroquinone
78591	Isophorone
58899	Lindane (all isomers)
108316	Maleic anhydride
67561	Methanol
72435	Methoxychlor
74839	Methyl bromide (Bromomethane)
74873	Methyl chloride (Chloromethane)
71556	Methyl chloroform (1,1,1-Trichloroethane)
60344	Methyl hydrazine
74884	Methyl iodide (Iodomethane)
108101	Methyl isobutyl ketone (Hexone)
624839	Methyl isocyanate
80626	Methyl methacrylate
1634044	Methyl tert butyl ether
101144	4-Methylene bis(2-chloroaniline)
75092	Methylene chloride (Dichloromethane)

CAS No.	Chemical name
101688	Methylene diphenyl diisocyanate (MDI)
101779	4,4'-Methylenedianiline
91203	Naphthalene
98953	Nitrobenzene
92933	4-Nitrobiphenyl
100027	4-Nitrophenol
79469	2-Nitropropane
684935	N-Nitroso-N-methylurea
62759	N-Nitrosodimethylamine
59892	N-Nitrosomorpholine
56382	Parathion
82688	Pentachloronitrobenzene (Quintobenzene)
87865	Pentachlorophenol
108952	Phenol
106503	p-Phenylenediamine
75445	Phosgene
7803512	Phosphine
7723140	Phosphorus
85449	Phthalic anhydride
1336363	Polychlorinated biphenyls (Aroclors)
1120714	1,3-Propane sultone
57578	beta-Propiolactone
123386	Propionaldehyde
114261	Propoxur (Baygon)
78875	Propylene dichloride (1,2-Dichloropropane)
75569	Propylene oxide
75558	1,2-Propylenimine(2-Methyl aziridine)
91225	Quinoline
106514	Quinone
100425	Styrene
96093	Styrene oxide
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin
79345	1,1,2,2-Tetrachloroethane
127184	Tetrachloroethylene (Perchloroethylene)
7550450	Titanium tetrachloride
108883	Toluene
95807	2,4-Toluene diamine
584849	2,4-Toluene diisocyanate
95534	o-Toluidine
8001352	Toxaphene (chlorinated camphene)
120821	1,2,4-Trichlorobenzene
79005	1,1,2-Trichloroethane
79016	Trichloroethyleneprocessing
95954	2,4,5-Trichlorophenol
88062	2,4,6-Trichlorophenol
121448	Triethylamine
1582098	Trifluralin
540841	2,2,4-Trimethylpentane
108054	Vinyl acetate
593602	Vinyl bromide
75014	Vinyl chloride
75354	Vinylidene chloride (1,1-Dichloroethylene)
1330207	Xylenes (isomers and mixture)
95476	o-Xylenes
108383	m-Xylenes
106423	p-Xylenes

Chemical name
Antimony Compounds
Arsenic Compounds (inorganic including arsine)
Beryllium Compounds
Cadmium Compounds
Chromium Compounds
Cobalt Compounds
Coke Oven Emissions
Cyanide Compounds[1]
Glycol ethers[2]
Lead Compounds
Manganese Compounds
Mercury Compounds
Fine mineral fibers[3]
Nickel Compounds
Polycyclic Organic Matter[4]
Radionuclides (including radon)[5]
Selenium Compounds

For all listings above which contain the word "compounds" and for glycol ethers, unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical as part of that chemical's infrastructure.

[1] X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or Ca(CN)2.

[2] Includes mono- and di-ethers of ethylene glycol, diethylene glycol and triethylene glycol R(OCH2CH2)n-OR' where:

n = 1, 2 or 3

R = alkyl C7 or less, or phenyl or alkyl substituted phenyl

R' = H, or alkyl C7 or less, or carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate.

[3] Includes mineral fiber emissions from facilities manufacturing or glass, rock or slag fibers or other mineral derived fibers of average diameter one (1) micrometer or less.

[4] Includes organic compounds with more than one (1) benzene ring and which have a boiling point greater than or equal to 100°C.

[5] A type of atom which spontaneously undergoes radioactive decay



**Power
Generation**

2015 EPA Tier 3 Exhaust Emission Compliance Statement 250DQDAA Stationary Emergency 60 Hz Diesel Generator Set

Compliance Information:

The engine used in this generator set complies with Tier 3 emissions limit of U.S. EPA New Source Performance Standards for stationary emergency engines under the provisions of 40 CFR 60 Subpart IIII when tested per ISO8178 D2.

Engine Manufacturer:	Cummins Inc
EPA Certificate Number:	FCEXL0540AAB-030
Effective Date:	12/09/2014
Date Issued:	12/09/2014
EPA Engine Family (Cummins Emissions Family):	FCEXL0540AAB(B563)

Engine Information:

Model:	QSL / QSL9 / QSL9-G7 NR3	Bore:	4.49 in. (114 mm)
Engine Nameplate HP:	464	Stroke:	5.69 in. (145 mm)
Type:	4 Cycle, In-line, 6 Cylinder Diesel	Displacement:	543 cu. in. (8.9 liters)
Aspiration:	Turbocharged and CAC	Compression Ratio:	17.8:1
Emission Control Device:		Exhaust Stack Diameter:	6 in.

Diesel Fuel Emission Limits

D2 Cycle Exhaust Emissions

	Grams per BHP-hr			Grams per kWm-hr		
	<u>NOx + NMHC</u>	<u>CO</u>	<u>PM</u>	<u>NOx + NMHC</u>	<u>CO</u>	<u>PM</u>
Test Results - Diesel Fuel (300-4000 ppm Sulfur)	2.8	1.7	0.07	3.8	2.3	0.10
EPA Emissions Limit	3.0	2.6	0.15	4.0	3.5	0.20
Test Results - CARB Diesel Fuel (<15 ppm Sulfur)	2.6	1.7	0.07	3.5	2.3	0.09
CARB Emissions Limit	3.0	2.6	0.15	4.0	3.5	0.20

The CARB emission values are based on CARB approved calculations for converting EPA (500 ppm) fuel to CARB (15 ppm) fuel.

Test Methods: EPA/CARB Nonroad emissions recorded per 40CFR89 (ref. ISO8178-1) and weighted at load points prescribed in Subpart E, Appendix A for Constant Speed Engines (ref. ISO8178-4, D2)

Diesel Fuel Specifications: Cetane Number: 40-48. Reference: ASTM D975 No. 2-D.

Reference Conditions: Air Inlet Temperature: 25°C (77°F), Fuel Inlet Temperature: 40°C (104°F). Barometric Pressure: 100 kPa (29.53 in Hg), Humidity: 10.7 g/kg (75 grains H₂O/lb) of dry air; required for NOx correction, Restrictions: Intake Restriction set to a maximum allowable limit for clean filter; Exhaust Back Pressure set to a maximum allowable limit.

Tests conducted using alternate test methods, instrumentation, fuel or reference conditions can yield different results.

Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may result in elevated emission levels.



**Power
Generation**

EPA Tier 3 Exhaust Emission Compliance Statement 200DSHAC 60 Hz Diesel Generator Set

Compliance Information:

The engine used in this generator set complies with the Tier 3 emissions limits of U.S EPA New Source Performance Standards for Stationary Emergency engines under the provisions of 40 CFR 60 Subpart IIII when tested per ISO 8178 D2.

Engine Manufacturer:	Cummins Inc.
EPA Certificate Number:	CEX-STATCI-11-21
Effective Date:	10/14/2010
Date Issued:	10/14/2010
EPA Diesel Engine Family:	BCEXL0540AAB
CARB Executive Order:	

Engine Information:

Model:	Cummins Inc. QSL9-G2 NR3	Bore:	4.49 in. (114 mm)
Engine Nameplate HP:	364		
Type:	4 Cycle, In-line, 6 Cylinder Diesel	Stroke:	5.69 in. (145 mm)
Aspiration:	Turbocharged and CAC	Displacement:	543 cu. in. (8.9 liters)
Compression Ratio:	16.8:1		
Emission Control Device:	Turbocharged and CAC		

U.S. Environmental Protection Agency NSPS Stationary Emergency Tier 3 Limits

(All values are Grams per HP-Hour)

<u>COMPONENT</u>	
NOx + HC (Oxides of Nitrogen as NO2 + Non Methane Hydrocarbons)	3.0
CO (Carbon Monoxide)	2.6
PM (Particulate Matter)	0.15

Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may result in elevated emission levels.



Exhaust Emission Data Sheet

250DQDAA

60 Hz Diesel Generator Set

EPA NSPS Stationary Emergency

Engine Information:

Model:	Cummins Inc. QSL9-G7 NR3	Bore:	4.49 in. (114 mm)
Type:	4 Cycle, In-line, 6 Cylinder Diesel	Stroke:	5.69 in. (145 mm)
Aspiration:	Turbocharged and CAC	Displacement:	543 cu. in. (8.9 liters)
Compression Ratio:	16.1:1		
Emission Control Device:	Turbocharger and CAC		

	<u>1/4</u>	<u>1/2</u>	<u>3/4</u>	<u>Full</u>	<u>Full</u>
PERFORMANCE DATA	Standby	Standby	Standby	Standby	Prime
Engine HP @ Stated Load (1800 RPM)	95.5	191	286.5	382	342
Fuel Consumption (gal/hr)	5.95	10.50	15.05	19.59	17.69
Exhaust Gas Flow (CFM)	968.7	1506.1	1906.3	2149.6	N/A
Exhaust Temperature (°F)	634	758	844	940	700
EXHAUST EMISSION DATA					
HC (Total Unburned Hydrocarbons)	0.33	0.162	0.09	0.046	0.052
NOx (Oxides of Nitrogen as NO2)	1.67	1.66	2.19	3.42	2.68
CO (Carbon Monoxide)	3.18	3.18	1.85	0.77	N/A
PM (particular Matter)	0.22	0.16	0.08	0.04	N/A
SO2 (Sulfur Dioxide)	0.142	0.132	0.123	0.115	0.12
Smoke (Bosch)	0.53	0.438	0.382	0.238	0.292

All values are Grams per HP-Hour

TEST CONDITIONS

Data was recorded during steady-state rated engine speed (± 25 RPM) with full load ($\pm 2\%$). Pressures, temperatures, and emission rates were stabilized.

Fuel Specification:	46.5 Cetane Number, 0.035 Wt.% Sulfur; Reference ISO8178-5, 40 CFR86.1313-98 Type 2-D and ASTM D975 No. 2-D.
Fuel Temperature:	99 \pm 9 °F (at fuel pump inlet)
Intake Air Temperature:	77 \pm 9 °F
Barometric Pressure:	29.6 \pm 1 in. Hg
Humidity:	NOx measurement corrected to 75 grains H2O/lb dry air
Reference Standard:	ISO 8178

The NOx, HC, CO and PM emission data tabulated here were taken from a single engine under the test conditions shown above. Data for the other components are estimated. These data are subjected to instrumentation and engine -to-engine variability. Field emission test data are not guaranteed to these levels. Actual field test results may vary due to test site conditions, installation, fuel specification, test procedures and instrumentation. Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may result in elevated emission levels.



2015 EPA Tier 3 Exhaust Emission Compliance Statement 250DQDAA Stationary Emergency 60 Hz Diesel Generator Set

Compliance Information:

The engine used in this generator set complies with Tier 3 emissions limit of U.S. EPA New Source Performance Standards for stationary emergency engines under the provisions of 40 CFR 60 Subpart IIII when tested per ISO8178 D2.

Engine Manufacturer:	Cummins Inc
EPA Certificate Number:	FCEXL0540AAB-030
Effective Date:	12/09/2014
Date Issued:	12/09/2014
EPA Engine Family (Cummins Emissions Family):	FCEXL0540AAB(B563)

Engine Information:

Model:	QSL / QSL9 / QSL9-G7 NR3	Bore:	4.49 in. (114 mm)
Engine Nameplate HP:	464	Stroke:	5.69 in. (145 mm)
Type:	4 Cycle, In-line, 6 Cylinder Diesel	Displacement:	543 cu. in. (8.9 liters)
Aspiration:	Turbocharged and CAC	Compression Ratio:	17.8:1
Emission Control Device:		Exhaust Stack Diameter:	6 in.

Diesel Fuel Emission Limits

D2 Cycle Exhaust Emissions

	Grams per BHP-hr			Grams per kWm-hr		
	<u>NOx + NMHC</u>	<u>CO</u>	<u>PM</u>	<u>NOx + NMHC</u>	<u>CO</u>	<u>PM</u>
Test Results - Diesel Fuel (300-4000 ppm Sulfur)	2.8	1.7	0.07	3.8	2.3	0.10
EPA Emissions Limit	3.0	2.6	0.15	4.0	3.5	0.20
Test Results - CARB Diesel Fuel (<15 ppm Sulfur)	2.6	1.7	0.07	3.5	2.3	0.09
CARB Emissions Limit	3.0	2.6	0.15	4.0	3.5	0.20

The CARB emission values are based on CARB approved calculations for converting EPA (500 ppm) fuel to CARB (15 ppm) fuel.

Test Methods: EPA/CARB Nonroad emissions recorded per 40CFR89 (ref. ISO8178-1) and weighted at load points prescribed in Subpart E, Appendix A for Constant Speed Engines (ref. ISO8178-4, D2)

Diesel Fuel Specifications: Cetane Number: 40-48. Reference: ASTM D975 No. 2-D.

Reference Conditions: Air Inlet Temperature: 25°C (77°F), Fuel Inlet Temperature: 40°C (104°F). Barometric Pressure: 100 kPa (29.53 in Hg), Humidity: 10.7 g/kg (75 grains H₂O/lb) of dry air; required for NO_x correction, Restrictions: Intake Restriction set to a maximum allowable limit for clean filter; Exhaust Back Pressure set to a maximum allowable limit.

Tests conducted using alternate test methods, instrumentation, fuel or reference conditions can yield different results.

Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may result in elevated emission levels.



Maricopa County

Air Quality Department

Maricopa County Air Quality Department
1001 N Central Ave, Suite 125, Phoenix, AZ 85004
Phone (602) 506-6010 Fax (602) 372-0587
AQPermits@mail.maricopa.gov

NON TITLE V PERMIT - MINOR MODIFICATION APPLICATION

1. Narrative description of the proposed modification :

THIS PAGE IS AN ADDENDUM TO THE MINOR MODIFICATION THAT WAS SUBMITTED IN NOV. 2015. (app. i.d. 410195)

The following Diesel Generators will be installed at Tonopah Ranch at the following locations:

G-48 Pullet House L
G-49 Pullet House M
G-50 Lay House 14
G-51 Water Tank #2 Booster Pump
G-52 Lay House 12
G-53 Lay House 13

2. Provide a list of equipment and emission control devices which will be installed or modified :

Assigned Equipment Number	Describe each Piece of Equipment Include Make & Model	Date of Installation or Modification	How Many	HP, KVA Gallons or Other Ratings (Specify Units)	Exhaust - Vent to Air	Exhaust - Vent to Control (Identify)		
G48 - G51	Gen Set 2016 Cummins, QSL9-G7 NR3, 250kW	April, 2016	4	464 HP	Yes		Add Row	Remove Row
G52 - G53	Gen Set 2016 Cummins, QSL9-G7 NR3, 250kW	October, 2016	2	464 HP	Yes		Add Row	Remove Row

3. Material List : List all materials handled, stored, processed, used, mixed, treated, or emitted. Include chemicals, mixtures, resins, cleaning compounds, etc., in this list. Identify each in sufficient detail and provide material safety data sheets (MSDS)

Material	Annual Usage or Throughput	Chemical Composition (% by weight)	Equipment Number in Which Used		
				Add Row	Remove Row

4. Describe Control Devices

Type of Device	Name/ID	Gas Flow Rate SCFW	Liquid Flow Rate Gal/Min	Control Efficiency (% Weight)		
					Add Row	Remove Row

5. Materials reclaimed or shipped as waste :

If applicable, complete the attached section Z-M.